

# **EXHIBIT 64**

# Recall System & Latest Issue in Korea

(Defect investigation on panoramic sunroof)

March 2014



Director General, Kwon Sokchang

KOREA, MOLIT (Ministry of Land, Infrastructure and Transport)  
0935

# Contents

I

**MOLIT, Motor Vehicle Policy Bureau**

II

**Recall System in Korea**

III

**KATRI, Defect Investigation Agency**

IV

**Latest Issue (panoramic sunroof)**

V

**Conclusion & Discussion**



## MOLIT, Motor Vehicle Policy Bureau

MOLIT is with you for your happiness

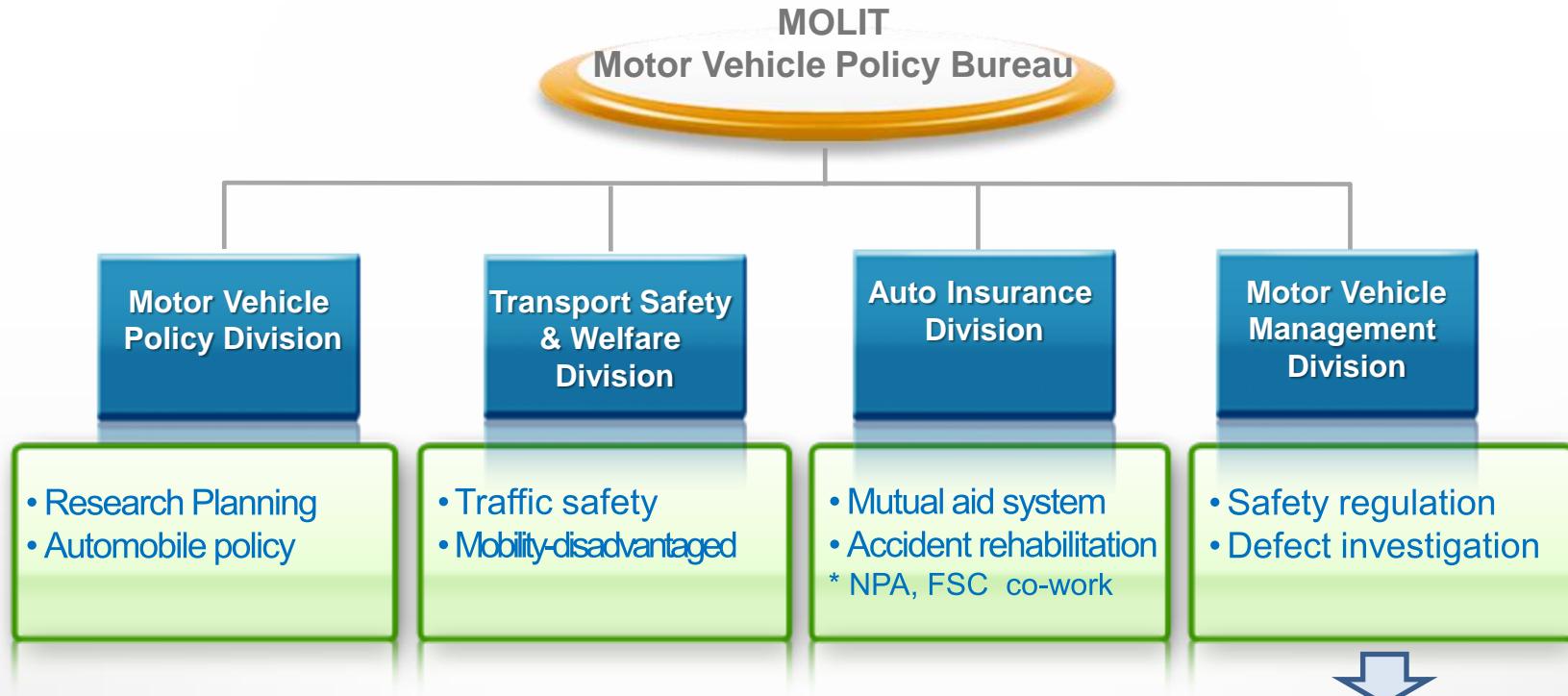


0937

# I. MOLIT, Motor Vehicle Policy Bureau

◆ Motor Vehicle Policy Bureau is part of MOLIT

◆ Motor Vehicle Policy Bureau has 4 Divisions



❖ KATRI (Korea Automobile Testing & Research Institute)  
: Recall investigation under the supervision of the Motor Vehicle Management Division

II

## Recall System in Korea

Your safety is our priority



0939

## II . Recall System in Korea

- **When sold automobiles are self-certified by the manufacturer**
  - **Self-Certification Compliance Investigation**  
: confirms whether related regulations are observed
  - **Safety Defect Investigation**  
: investigates whether safety-threatening defects are present
- **When a defect fails to observe standards or threatens safety**  
Owners of the vehicle in question are notified and the vehicle is subjected to repair, exchange or refund

### < Related Regulations >

- Article 30-3 of the Automobile Management Act  
**(Suspension of production or sale of automobiles or automotive parts)**
- Article 31 of the Automobile Management Act  
**(Correction of manufacturing defects)**

## II. Recall System in Korea

### 1. Self-Certification Compliance Investigation

#### Compliance test procedure

**Checking whether sold automobiles meet vehicle safety standards through self-certification system**

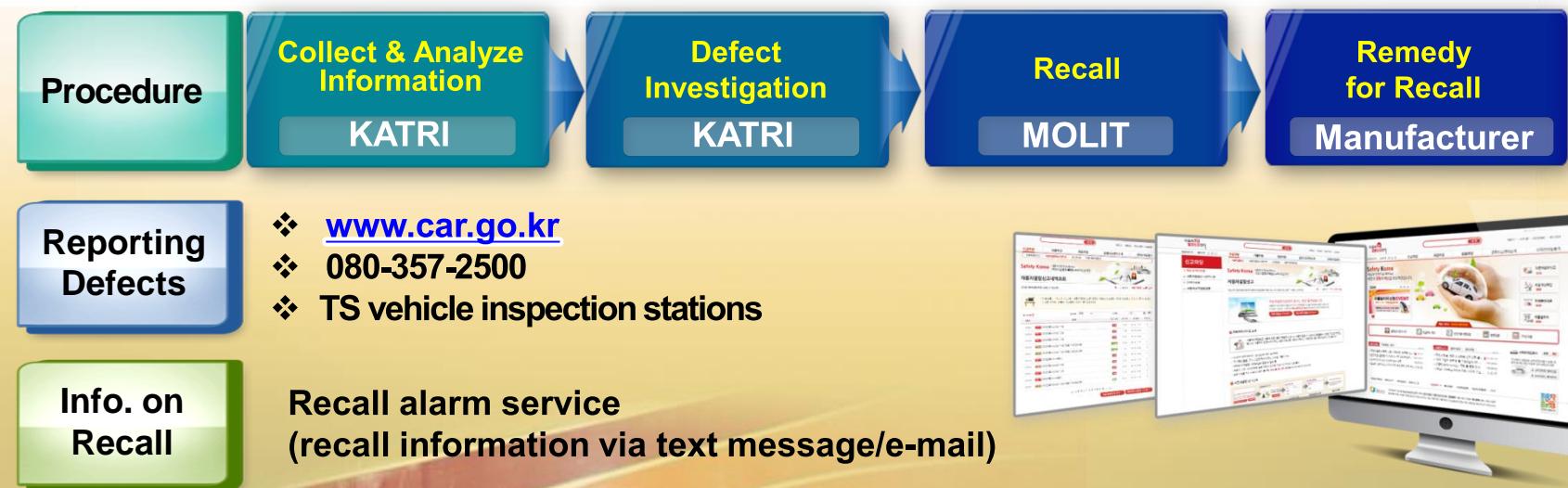
**Samples are randomly selected by purchasing vehicles from the market**

**Test performed to check whether samples comply with vehicle safety standards and results are made public**

## II . Recall System in Korea

### 2. Defect Investigation

Defect information is collected through the Internet, telephone, media and 57 inspection stations. Upon confirmation of the defect being a serious issue, a defect investigation is launched. If the defect is identified as safety-threatening, all affected models are recalled





# KATRI, Defect Investigation Agency

The world's best and most trusted Vehicle safety agency



0943

### III. KATRI, Defect Investigation Agency

#### History

1980s

**May 1987** Established KATRI (Korea Automobile Testing & Research Institute)

**Sep. 1987** Appointed as a Vehicle Safety Testing Institute (by MOLIT)

1990s

**Jan. 1994** Extended test items of vehicle safety test (6→38 items)

**Nov. 1996** Completed construction of 7 Indoor Testing Institute Facilities

2000s

**Dec. 2002** Completed phase 1 of Proving Ground

**Jan. 2003** Appointed as a Performance Test Institute (MOLIT)

2010s

**May. 2013** Hosted the 23<sup>rd</sup> ESV International Conference

**Nov. 2013** Construction of 4 advanced test tracks

#### Staff

- ❖ Staff of KATRI: 128 persons (Master's degree or higher: 76 persons )
- ❖ TS vehicle inspection stations: 57 locations (525 persons)

### III. KATRI, Defect Investigation Agency

#### Facility Layout





IV

## Latest Issue (panoramic sunroof)

We have state-of-the-art facilities  
as well as the best engineers



0946

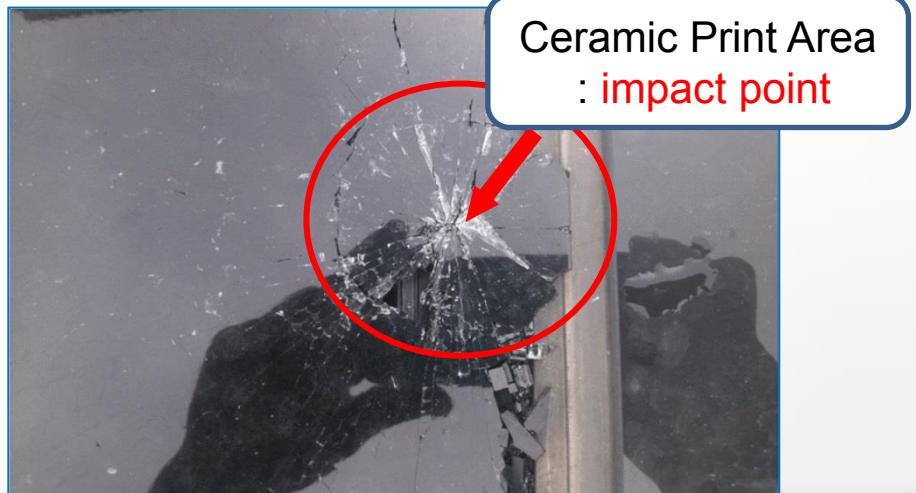
## IV. Latest Issue (panoramic sunroof)

- Sharp increase in consumer complaints of panoramic sunroof
  - 2011: 2 cases
  - 2013: 33 cases (5 cases of imported models)
- Details of consumer complaints
  - Sudden shattering of panoramic sunroof while driving the car with the driver unaware
  - Driver may suffer abrasions due to shattered glass and encounter risk of secondary accidents



## IV. Latest Issue (panoramic sunroof)

### Images of panoramic sunroof damages



## IV. Latest Issue (panoramic sunroof)

### Characteristics of panoramic sunroofs

- ◆ The use of panoramic sunroofs has been increasing since 2007
- ◆ The ceramic print area was small in conventional sunroofs, but, with the introduction of panoramic sunroofs the ceramic print area has increased
  - Ceramic print area of panoramic sunroofs is **50% on average**, and **90% maximum**.
- ◆ Black enamel, the paint used for ceramic print area of automobile toughened glass, is **produced by 2 companies** and is distributed throughout the world
  - Components of black enamel thought to be adulterant in toughened glass – impairs sunroof strength

## IV. Latest Issue (panoramic sunroof)

### Results of 227g ball drop test

- ◆ **Toughened Glass (Area without ceramic print)** 
  - : No shattering even at drop height of 10 meters
- ◆ **Toughened Glass (Ceramic print area)** 
  - : Shattered at average height of 1.4 meters
- ◆ **Original Glass (prior to toughened)** 
  - : Shattered at average drop height of 3 meters

#### ❖ Complaint Manufacturers' Opinion

- Not require a ball drop test for ceramic print area
- Point of impact: geometric center (UN R43), support center (GTR 6)

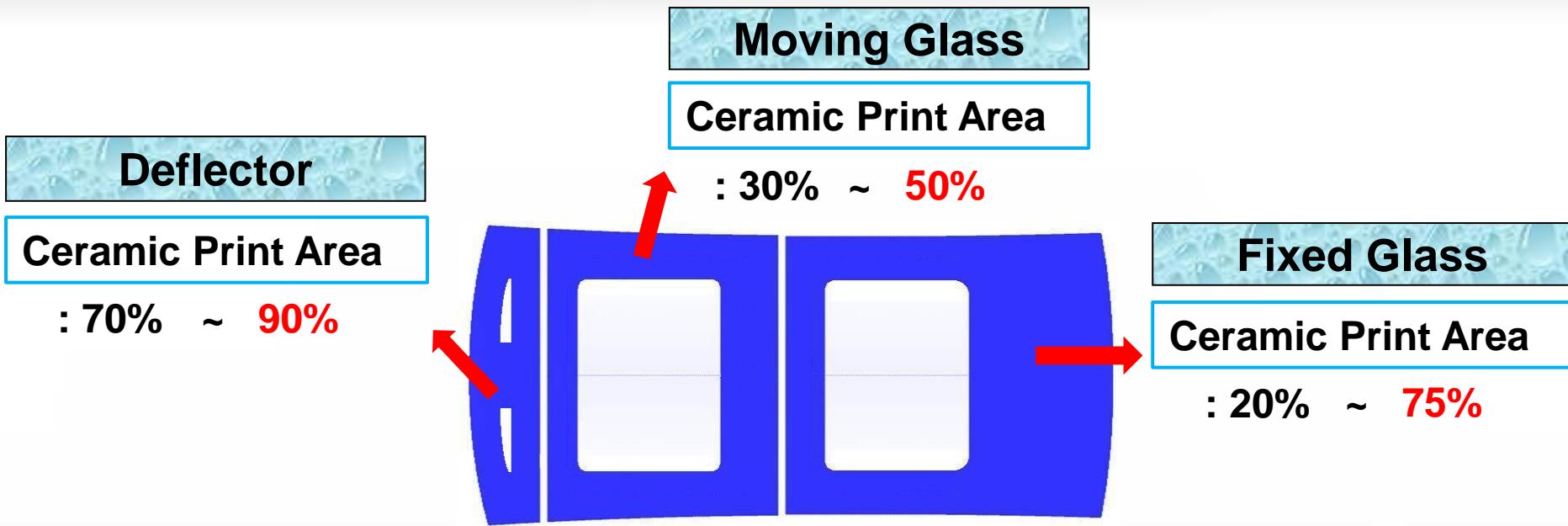


# V

## Conclusion & Discussion

We will become the world's most trusted vehicle safety organization

## V. Conclusion & Discussion



Ceramic printed toughened glass cannot be considered toughened glass as its strength is poorer than to original glass

- Ceramic printed toughened glass: approx. 1.4 m
- Original glass prior to toughened: approx. 3.0 m

## V. Conclusion & Discussion

- Proposed an discussion of vulnerability of ceramic print area of toughened glass
  - Whether it is safe for toughened glass for automobiles?
    - Determined that there is no safety issue - **Closing discussion**
    - Determined that the safety problems - **Requires discussion**
      - \* **Amendment for UN R 43 & GTR 6**
  - Safety concerns, Sales for the panoramic sunroof of automobile is determined by the range should be recalled
  - ❖ Manufacturers need to take the initiative in developing ways to improve the strength of ceramic print area

# Thank you very much!!



**Director General, Kwon Sokchang**

**katrietf@ts2020.kr**